



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-1289; Directorate Identifier 2012-NE-43-AD; Amendment 39-17323; AD 2013-02-02]**

**RIN 2120-AA64**

**Airworthiness Directives;** CFM International, S.A. Turbopfan Engines Modified by Supplemental Type Certificate SE00034EN

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for CFM International, S.A. CFM56-3, CFM56-3B, and CFM56-3C turbopfan engines. This AD requires removal from service of certain high-pressure turbine (HPT) disks manufactured by Global Material Solutions of Pratt & Whitney, at reduced maximum life limits. This AD was prompted by a report of a forging process error during manufacture of these HPT disks. We are issuing this AD to prevent uncontained release of multiple turbine blades, damage to the engine, and damage to the airplane.

**DATES:** This AD is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; phone: 860-565-7700; fax: 860-565-1605. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Kenneth Steeves, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7765; fax: 781-238-7199; email: [kenneth.steeves@faa.gov](mailto:kenneth.steeves@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We received a report from Global Material Solutions of Pratt & Whitney, of a forging process error that occurred during manufacture of HPT disks, part number (P/N) 880026, serial numbers (S/Ns) GLKBAA9307, GLKBAA9335, GLKBAA9404, GLKBAA9407, and GLKBAA9409. During the last forging operation of the manufacturing process, the forging temperature at the disk rim was incorrect. This resulted in below allowable creep properties of the HPT disk, which reduced the calculated maximum life limits. This condition, if not corrected, could result in uncontained release of multiple turbine blades, damage to the engine, and damage to the airplane.

### **FAA's Determination**

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **AD Requirements**

This AD requires removal of the affected HPT disks at reduced maximum life limits, as follows:

- For CFM56-3, CFM56-3B and CFM56-3C turbofan engines operating to 20,100 lbs maximum takeoff (MTO) thrust, remove the HPT disk on or before accumulating 8,000 cycles-since-new (CSN).
- For CFM56-3B and CFM56-3C turbofan engines operating to 22,100 lbs MTO thrust, remove the HPT disk on or before accumulating 8,000 CSN.
- For CFM56-3C turbofan engines operating to 23,500 lbs MTO thrust, remove the HPT disk on or before accumulating 4,000 CSN.

- For HPT disks that have been used in multiple models or thrust installations, the formula in the ADDED DATA section of Pratt & Whitney Special Instruction 6F-12 dated December 21, 2012 must be used to calculate the remaining life on the disk.

#### **FAA’s Justification and Determination of the Effective Date**

No domestic operators use this product. Therefore, we find that notice and opportunity for prior public comment are unnecessary and that good cause exists for making this amendment effective in less than 30 days. Accordingly, this AD is effective upon publication.

#### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket Number FAA-2012-1289; Directorate Identifier 2012-NE-43-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2013-02-02 **CFM International, S.A.**: Amendment 39-17323; Docket No. FAA-2012-1289; Directorate Identifier 2012-NE-43-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to CFM International, S.A. CFM56-3, CFM56-3B, and CFM56-3C turbofan engines, modified by Supplemental Type Certificate SE00034EN, with a high-pressure turbine (HPT) disk, part number (P/N) 880026, serial number (S/N) GLKBAA9307, GLKBAA9335, GLKBAA9404, GLKBAA9407, or GLKBAA9409, installed.

#### **(d) Unsafe Condition**

This AD was prompted by a report of a forging process error during manufacture of these HPT disks. We are issuing this AD to prevent uncontained release of multiple turbine blades, damage to the engine, and damage to the airplane.

**(e) Compliance**

Comply with this AD within the compliance times specified, unless already done.

(1) For CFM56-3, CFM56-3B, and CFM56-3C turbofan engines operating to 20,100 lbs maximum takeoff (MTO) thrust, remove the HPT disk from service on or before accumulating 8,000 cycles-since-new (CSN).

(2) For CFM56-3B and CFM56-3C turbofan engines operating to 22,100 lbs MTO thrust, remove the HPT disk from service on or before accumulating 8,000 CSN.

(3) For CFM56-3C turbofan engines operating to 23,500 lbs MTO thrust, remove the HPT disk from service on or before accumulating 4,000 CSN.

(4) For HPT disks that have been used in multiple models or thrust installations, the formula in the ADDED DATA section of Pratt & Whitney Special Instruction 6F-12 dated December 21, 2012 must be used to calculate the remaining life on the disk.

**(f) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(g) Related Information**

For more information about this AD, contact Kenneth Steeves, Aerospace Engineer, Engine Certification Office, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7765; fax: 781-238-7199; email: [kenneth.steeves@faa.gov](mailto:kenneth.steeves@faa.gov).

**(h) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Pratt & Whitney Corp. Special Instruction No. 6F-12, dated December 21, 2012.

(ii) Reserved.

(3) For service information identified in this AD, contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; phone: 860-565-7700; fax: 860-565-1605.

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on January 14, 2013.

Thomas Boudreau,  
Acting Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.

[FR Doc. 2013-01360 Filed 01/25/2013 at 8:45 am; Publication Date: 01/28/2013]